REMARKS

Applicants respectfully request reconsideration of the present application in view of the reasons that follow. Claims 33-38 were previously canceled. Claims 1-32 are now pending in this application.

I. Claim Rejections under 35 U.S.C. § 102

In section 2 of the Office Action, Claims 1-6, 9-20, and 23-32 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Publication No. 2002/0080752 to Johansson *et al.* (*Johansson*). Applicants respectfully traverse the rejection because *Johansson* fails to teach, suggest, or disclose all of the elements of at least independent Claims 1, 15, and 29.

Claim 1 recites:

> configuring a temporary address for an interface of a sub-element of a network element, the network element comprising a control module and the sub-element, wherein the temporary address is valid in an internal network associated with the network element;
>
> retrieving an identifier of the network element from the control module; and
>
> defining a second address for the interface of the sub-element based on the retrieved identifier of the network element and the temporary address, wherein the second address is valid in an external network with which the network element communicates

(Underlining added). Claims 15 and 29, though of different scope recite a similar feature.

On page 2 of the Office Action, the Examiner states:

> Johansson discloses ...: configuring a temporary address for an interface (Fig.9a, [0123-0124]: interface 90b. Temporary care-of address) of a sub-element (Fig.9a and [0124]: mobile node 3) of a network element ([0124]: 5c), the network element comprising a control module (Fig.7 and [0123]: DHCP server 72) and the sub-element (Fig.9a: mobile node 3), wherein the temporary, address is valid in an internal network associated

> with the network element (Fig.9a: subnet 8); retrieving an identifier of the network element from the control module ([0123]); and defining a second address for the interface of the sub-element based on the retrieved identifier of the network element and the temporary address (Fig.9a, [0121-0123]: mobile node 3 source IP address set to care-of address), wherein the second address is valid in an external network with which the network element communicates (Fig.9a: subnet 9).

Applicants respectfully disagree and respectfully submit that the Examiner has mischaracterized *Johansson*. First, the Examiner states that the network element is local router 5c which comprises DHCP server 72 as the control module and mobile node 3 as the sub-element of local router 5c. Applicants respectfully submit that a mobile node is not a sub-element of a completely separate network device such as local router 5c. Second, *Johansson* fails to teach, suggest, or describe any capability whatsoever related to at least "defining a second address for the interface of the sub-element based on the retrieved identifier of the network element and the temporary address" (underlining added) as recited in independent Claims 1, 15, and 29.

A. A mobile node is not a sub-element of a local router

Johansson is directed to a "route optimization technique requiring no awareness of the mobile IP protocol by a Correspondent Node." (Abstract). Relative to the relationship between local router 5c and mobile node 3, *Johansson* states "[w]hen the mobile node 3 is entering the visited subnetwork 8, and cannot find a foreign agent 3, it will request a care-of address 100 using the dynamic host configuration protocol (DHCP) 72 towards the local router 5c." (Para. [0107]). With reference to Figs. 7 and 9a of *Johansson* reproduced below, *Johansson* indicates that local router 5c which comprises DHCP server 72 and mobile node 3

Fig. 7

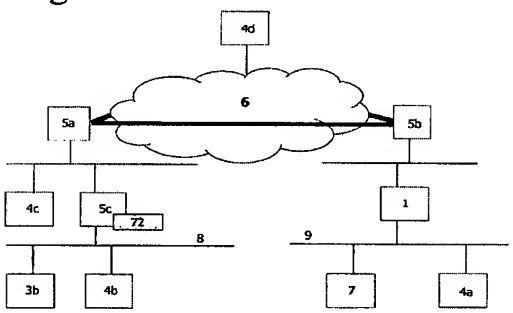
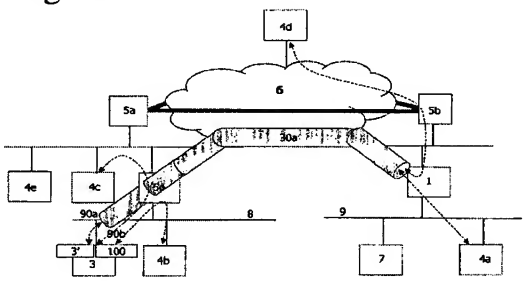


Fig. 9a



are distinct network elements. Thus, contrary to the Examiner's position, the mobile node 3 is not a sub-element of local router 5c. As a result, *Johansson* fails to teach, suggest, or describe:

> configuring a temporary address for an interface of a sub-element of a network element, the network element comprising a control module and the sub-element, wherein the temporary address is valid in an internal network associated with the network element;
>
> retrieving an identifier of the network element from the control module; and

(underlining added) as recited in Claim 1, and similarly recited in Claims 15 and 29.

B. Johansson fails to teach any functionality associated with "defining a second address for the interface of the sub-element based on the retrieved identifier of the network element and the temporary address"

At paragraphs [0121][0124] cited by the Examiner, *Johansson* states:

> FIG. 9a illustrates the case when optimized routing is applied in a mobile IP 27 co-located care-of address scenario. The entities involved are the same as in the previous scenario shown in FIG. 7. However, the mobile node 3 has two interfaces:
>
> One interface 90a with the source IP address set as the mobile node 3 IP address 3' for sending and receiving traffic to the home agent 1 via a mobile IP tunnel 30a; and
>
> One interface 90b with the source IP address set to the care-of address 100 received from the DHCP server 72 and to be used for sending and receiving traffic on the visited network 8.
>
> Datagrams sent between the mobile node 3 and the correspondent nodes 4a and 4d will be sent via the interface 90a, while datagrams sent between the mobile node 3 and the correspondent nodes 4b and 4c will be sent through the local interface 90b. Note that mobility is not achieved for TCP sessions in the latter case as the temporary care-of address is used as the source IP address and the mobile node 3 will be allocated a new care-of address by each foreign agent 2. This may not be a large problem as most of the local applications available at the visited network 8, may only be relevant as long

> as the mobile node 3 is on the visited network 8, i.e. they will anyway be terminated before leaving the visited network 8. A more advanced solution is to decide which interface 90a or 90b to use for a route based on the port number. In this way applications that are sensitive to source IP address changes, and likely to be used while changing from one foreign agent 2 to another, would be forced to be sent on the interface 90a back to the home agent 1 and in such way survive when a mobile node 3 changes its point of attachment. A typical example of such an application is the session invitation protocol (SIP) and real-time transport protocol (RTP) 50d, which will typically be used for voice over IP calls and e.g. streaming video.

(Underlining added). Thus, according to *Johansson*, the mobile node uses a "source IP address set as the mobile node 3 IP address" or a "source IP address set to the care-of address 100 received from the DHCP server 72" depending on the location of the entity to which the traffic is directed. However, *Johansson* fails to provide any teaching whatsoever that either source IP address is defined "based on the retrieved identifier of the network element and the temporary address" as recited in Claim 1, and similarly recited in Claims 15 and 29.

For at least these reasons, Applicants respectfully submit that *Johansson* fails to teach, suggest, or describe all of the elements recited in at least independent Claims 1, 15, and 29. A rejection under 35 U.S.C. § 102 cannot be properly maintained where the reference does not teach each and every element of the rejected claims. The remaining claims depend from one of Claims 1, 15, and 29. For at least these reasons, Applicants respectfully request withdrawal of the rejection of Claims 1-6, 9-20, and 23-32.

II. Claim Rejections under 35 U.S.C. § 103

In section 4 of the Office Action, Claims 7, 8, 21 and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Johansson* in view of U.S. Patent Publication No. 2002/0039357 to Lipasti *et al.* (*Lipasti*). Applicants respectfully traverse the rejection.

As discussed in section I. above, *Johansson* fails to teach all of the elements of at least independent Claims 1 and 15 from which 7-8 and 21-22 depend, respectively. *Lipasti* fails to remedy the deficiencies of *Johansson*.

Lipasti is directed to "routing packets in a mobile ad hoc network comprising a plurality of wireless mobile nodes." (Abstract). *Lipasti* further describes "special routing addresses, also called the L2.5 addresses, are composed from network layer addresses or from unique mobile node device identifiers (typically data link layer Medium Access Control MAC addresses) and used for routing packets inside a mobile ad hoc network." (Para. [0026]). *Lipasti* still further describes

> FIG. 8 illustrates the basic function of a mobile node MN sending packets according to a preferred embodiment of the invention. As a need to send a packet comprising a destination IP address arises 800, it is checked 801 if a source IP address is available. If there is no fixed IP address for the MN, the MN acquires 802 one dynamically. The IP address may be acquired from a DHCP server (IPv4 or IPv6) or a stateless address autoconfiguration procedure is performed (in the case of IPv6).

(Para. [0045]; underlining added). However, *Lipasti* fails to provide any teaching whatsoever that either source IP address is defined "based on the retrieved identifier of the network element and the temporary address" as recited in Claim 1, and similarly recited in Claim 15. Instead, *Lipasti* describes a "64-bit L2.5 address derived from 48-bit BD_ADDR" (para. [0051]) where *Lipasti* states that "[e]ach Bluetooth device is defined with a specific 48-bits long identifier called a BD_ADDR." (Underlining added).

Lipasti further fails to teach, suggest, or describe:

> configuring a temporary address for an interface of a sub-element of a network element, the network element comprising a control module and the sub-element, wherein the temporary address is valid in an internal network associated with the network element;
>
> retrieving an identifier of the network element from the control module; and

(underlining added) as recited in Claim 1, and similarly recited in Claim 15.

Therefore, *Johansson* and *Lipasti*, alone and in combination, fail to teach, suggest, or describe all of the elements of at least independent Claims 1 and 15. For at least this reason,

Applicants respectfully request withdrawal of the rejection of Claims 7-8 and 21-22, which depend from Claims 1 and 15, respectively.

Applicants believe that the present application is in condition for allowance. Favorable reconsideration of the application is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By _____

FOLEY & LARDNER LLP
Customer Number: 23524
Telephone: (608) 258-4263
Facsimile: (608) 258-4258

Callie M. Bell
Attorney for Applicants
Registration No. 54,989